RELATIONSHIP BETWEEN AERIAL COLOR INFRARED PHOTOGRAPHY AND CITRUS GROVE PRODUCTION

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Abstract. Aerial color infrared (ACIR) photographs of an orange grove were processed and interpreted to extract information on tree conditions (health, growth, size, disease, or absence), for association with past production records to estimate the yield from next year's crop. Photointerpreted data were processed with a program (in BASIC) using an Apple II+ computer. Tree counts were made using a grid/cell system which summarizes data by blocks and produces grove maps with 95% accurate location of trees. Summaries of tree counts (per block) were prepared separating trees into the above mentioned conditions that would allow production estimates using production data previously published by state agencies. ACIR photographs also yielded additional information related to previous black and white photography associating tree growth to soil types, water table, and topography.